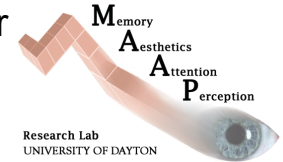


The Relationship between Narcissism, Overconfidence and Risky Behavior

Kristen Kemp, Jamie Flannery, Megan Dailey, Peter Sismour, & Arianna Arnett
Advisors: Dr. Susan T. Davis & Adam J. Barnas
The University of Dayton



BACKGROUND

- On a daily basis, we are required to estimate our ability to accurately accomplish certain tasks. These estimations are greatly influenced by individual differences. These differences include narcissism, which is defined as the enhancement of oneself in a positive way, and risky behavior, which is defined as the willingness to place high bets on uncertain answers (Campbell, Goodie, & Foster, 2004).
- When determining our ability to be accurate in accomplishing specific tasks, we tend to show overconfidence, which is defined as the inconsistency between how well we think we performed and our actual performance (Fischhoff, Slovic, & Lichtenstein, 1977).
- Previous research suggests that people who are narcissistic are generally overconfident, higher in risk-taking, and are more likely to bet on their answers even when the accuracy of their answers is low (Campbell et al., 2004).
- People tend to lower their confidence ratings when notified when they answer a question incorrectly (Arkes et al., 1987).

PRESENT RESEARCH

- Participants who bet on the accuracy of their response to a set of general knowledge questions (GKQ) would be more overconfident than those who reported their confidence on the accuracy of their response to a set of general knowledge questions.
- We predicted that there would be positive correlations between overconfidence, narcissism, and risk taking, especially between those who scored high on narcissistic and risk taking behavior.
- Participants in the betting group will demonstrate greater overconfidence and will score higher on measures of risk taking and narcissism compared to participants in the confidence group.
- Participants who did not receive feedback on their accuracy would be more overconfident compared to participants who did receive feedback.

REFERENCES

- Arkes, H. R., Christensen, C., Lai, C., Blumer, C. (1987). Two methods of reducing overconfidence. *Organizational Behavior and Human Decision Processes*, 39 (1), 133-144.
- Campbell, W.K., Goodies, A. S., & Foster, J.D. (2004). Narcissism, confidence, and risk attitude. *Journal of Behavioral Decision Making*, 17, 297-311.
- Fischhoff, B., Slovic, P., & Lichtenstein, S. (1977). Knowing with certainty: The appropriateness of extreme confidence. *Journal of Experimental Psychology: Human Perception and Performance*, 3, 552-564.

METHOD

Participants

- Condition 1: Betting with feedback, n= 16
- Condition 2: Betting with NO feedback, n= 25
- Condition 3: Confidence with feedback, n = 37
- Condition 4: Confidence with NO feedback, n = 49
- All participants were undergraduate students enrolled in an Introductory Psychology class.

Procedure

Participants were asked to complete several personality questionnaires and a series of general knowledge questions.

Participants were divided into a confidence group and betting group. The betting group was required to place bets with virtual money to express their confidence in the accuracy of their answer. Participants were either awarded or docked the virtual money based on their accuracy. The confidence group rated their confidence from 0 to 100 in the accuracy of their answer to the set of general knowledge questions.

Half of the participants received feedback about the accuracy of their answer, while the other half did not receive feedback.

Personality and other Assessment Materials

General Knowledge Questions (GKQ):

What is the capital of New York? (Answer = Albany)

Narcissistic Personality Inventory (NPI): assesses the participants' level of narcissism

I am going to be a great person.

Need for Achievement Scale: assesses the participants' desire to reach high standards and make significant accomplishments

I tend to set very difficult goals for myself.

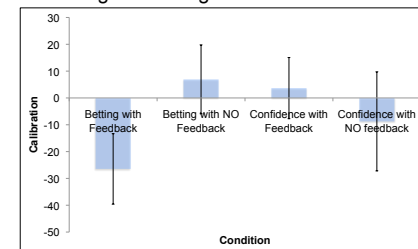
Indicators of Problematic Gambling: assesses the participants' problematic betting behavior

Risk Averseness Scale: assesses the reluctance of participants to gamble on an uncertain outcome

To achieve something in life, one has to take risks.

RESULTS

- The amount of over- or under-confidence, also known as the calibration score, on the GKQs was assessed as the dependent variable in this experiment. Calibration scores were calculated by subtracting performance accuracy from percent confidence ratings or betting amount.



- Statistically significant interaction between "condition" (betting or confidence) and feedback, $F(1, 123) = 62.315, p < .0001$

DISCUSSION

- Those participants in the betting condition *without* feedback were betting more than they should have given their level of performance ($M = 6.91$); however, given feedback on performance, the percent of bets diminished relative to their higher accuracy – what might be considered becoming highly under-confident in the accuracy of their performance.
- On the other hand, given feedback, those who estimated their confidence in their GKQ answers were somewhat overconfident ($M = 3.66$) as compared with the under-confidence expressed by those who did not get feedback ($M = -8.76$).
- Betting participants become not only more cautious, but overly cautious, while confidence-rating participants became less cautious with feedback.
- Overall, the mean percent accuracy was 41%, with 61% of all participants scoring less than 50% correct on the questions. This indicates that participants "should have been" concerned about their performance.
- In the end, feedback had different effects, depending on the way in which confidence was assessed, either by confidence ratings or what people would be willing to bet.
- A preliminary analysis did not reveal a significant correlation between narcissism and overconfidence for those in the betting with no feedback condition, $r(N = 25) = .203, p = .330$.
- Further analyses on the inventories will be conducted.